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November 13, 1997

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William F. Caton, Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, DC 20554

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NOV 13 1997

Re: MM Docket No. 97-196
RM-9151

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Dear Mr. Caton:

On November 12, 1997, the undersigned filed Reply Comments on behalf of Tennessee Instructional Radio in the above-referenced matter. In Exhibit 1 of that filing, we included a photocopy of the Affidavit of John P. Allen and stated that the original Affidavit would be submitted at a later date as a supplement. In that regard, enclosed herewith is the original Affidavit of John P. Allen for inclusion in yesterday's filing.

Please contact me if you have any questions or require any additional information regarding this supplement.

Sincerely,

Davis Wright Tremaine LLP

Linda J. Eckard

Enclosure

cc: Roy J. Stewart, Esq. (w/encl.)
Mr. John A. Karousos (w/encl.)
Gary S. Smithwick, Esq. (w/encl.)
Mr. Rich Gwyn (w/encl.)

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11/13/97

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Airspace Consultant

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STATE OF FLORIDA)

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COUNTY OF NASSAU)

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

AFFIDAVIT OF JOHN P. ALLEN

I, John P. Allen, being first duly sworn, do hereby depose and state that I am an Airspace Consultant in private practice, with offices at 905 South 8th Street, Fernandina Beach, Florida. My qualifications are a matter of record with the Federal Aviation Administration (FAA) and the Federal Communications Commission (FCC). A brief resume is attached hereto as "Attachment A."

I have been retained by Tennessee Instructional Radio ("TIR"), to conduct an independent aeronautical evaluation of a proposal to amend the Commission's FM Table of Allotments to delete Channel 298A at La Fayette, Georgia. Specifically, I was requested to evaluate comments submitted by Great South Broadcasting, Inc. ("GSB") opposing the deletion of Channel 298A.

GSB through its consultant (EME Communications) has offered three specific alternatives, that it claims could be used to

eliminate the potential electromagnetic interference, detected by the FAA's Airspace Analysis Model ("Model"). GSB makes reference to the use of halfwave spaced antennas, the use of directional antenna patterns and the possibility of changing the FAA assigned frequencies to the navigational facilities with potential intermodulation products. GSB failed to support its claims with any underlying data or analysis and as shown below, none of the three alternatives are viable.

In an effort to evaluate the proposal put forth by GSB, I established a baseline of potential interference. I used the FAA's Airspace Analysis Model, Version 4.21, as supplied by the FAA's Spectrum Engineering Branch (ASM-500). The FM data used in the analysis was current as of September, 1997 and a standard wave generic antenna pattern (six bay) was used in the initial analysis. The FAA's Model detected potential interference to the CGW localizer facility serving Runway 2 at the Chattanooga/Lovell Field. Using the site identified in the application of Radix Broadcasting, Inc. at Coordinates: Latitude 34-41-38 North - Longitude 85-16-12 West (North American Datum - 1927), the Model detected 2,102, 2, and 160 points of interference at 6 KW. See Attachment "B". Remaining at 6 KW and incorporating a fourteen bay halfwave spaced antenna with one degree of beam tilt, the potential interference points were reduced, though not

significantly from 2,102, 2, and 160 points to 2,066, 1, and 154 points of interference. Since the FAA's policy towards new FM stations is zero points of interference, even incorporation of the largest antenna pattern within the Model does not solve the problem. This analysis was again conducted with a fourteen bay halfwave spaced antenna with one degree of beam tilt with a reduction of the ERP from 6 KW to 100 watts. The Model detected 8 points of interference.

The same analysis using the FAA's Mode was conducted at the five hypothetical sites that were identified in TIR's Supplement to Petition for Rule Making filed by TIR were also analyzed by the Model. In each case the results were the same. All of the sites demonstrated potential intermodulation interference to the CGW localizer facility serving Runway 2 at Chattanooga/Lovell Field See Attachment "C".

GSB has also suggested changing the navigational frequencies that would be affected, if the proposed station was authorized. In order to change frequencies, alternate frequencies must be available and the FAA and airport operators must be willing to agree to the change. Based upon my years of experience, such a process is expensive (\$50,000 to \$100,000 per frequency change), complex and should not be relied upon as a viable option.

In conclusion, it is my professional opinion, that the proposed Channel 298A Fayette with an operating ERP of 2.75 KW would not be acceptable to the FAA and would continue to receive a Determination of Hazard to Air Navigation by the FAA. The solutions offered by GSB would not resolve the potential intermodulation findings and would still warrant a Determination of Hazard to Air Navigation for any ERP above 35 watts.

Respectfully submitted,



John P. Allen

Subscribed and sworn to before me, the undersigned Notary Public, this 12th day of November, 1997, by the within-named John P. Allen, well known to me to be the person executing this document.



Mary C. Lowe
Notary Public

My Commission Expires:



Mary C. Lowe
MY COMMISSION # CC496989 EXPIRES
October 23, 1999
BONDED THRU TROY FAIR INSURANCE, INC.

ATTACHMENT "A"

ABOUT JOHN P. ALLEN

PROFESSIONAL EXPERIENCE:

Airspace Consultant 1981-Present: Conducts aeronautical evaluations for proposed construction or alteration of structures; files appropriate forms with the Federal Aviation Administration; amends aeronautical surfaces when required; conducts negotiations and provides testimony on behalf of sponsors with FAA, FCC or local governmental bodies concerning technical matters relating to Aviation Safety.

FAA Air Traffic Controller 1968 to 1981

U. S. Air Force Air Traffic Controller 1964 to 1968

PROFESSIONAL ACTIVITIES:

Representative to the National Transportation Safety Board as an expert in air traffic control 1975 to 1977

Chairman of the Facility Air Traffic Technical Advisory Committee 1975 to 1977

Representative to the National Aviation Safety Council 1977 to 1981

Member of the Society of Broadcast Engineers

Member of the Fernandina Beach Airport Advisory Commission

Associate Membership:

Association of Federal Communication Consulting Engineers

National Association of Broadcasters

EDUCATION:

Bachelor of Science Degree. Management/Small Business Administration 1977, Jones College, Jacksonville, Florida

Professional Certifications: Air Traffic Controller

FILE: E:\AAB\DATA\RFI.PRT CASE: RT PRINT DATE: 11-03-1997 14:03:51

Airspace case #: 97-JPA-103097

Site: INITIAL TEST GENERIC

Date: 103197

AAM Version 4.21, 051094

Navaid Identifier: CGW

Navaid Frequency (MHz): 108.30

Navaid Latitude: 35. 2 39

Navaid Longitude: 85. 11 59

Runway Heading (True): 20.0

Runway Elevation (Ft. MSL): 666.

Runway Length (Ft): 7401.

Prop Stat	ID	Call	Freq (MHz)	Latitude	Longitude	ERP (Kw)	Height (MSL)	Range (NM)	Radial (True)	Lic Stat
1	WUTC	88.10	35. 12 26	85. 16 52	30.000	2208.	10.57	157.79	L	
2	NEW-	88.50	35. 12 34	85. 16 39	.010	2648.	10.63	158.95	A	
3	WMBW	88.90	34. 57 43	85. 22 40	98.000	2493.	10.05	60.59	L	
4	WDYN	89.70	35. 10 17	85. 18 58	100.000	2149.	9.53	143.19	L	
5	WSMC	90.50	35. 15 20	85. 13 34	100.000	2313.	12.75	174.17	L	
6	W216	91.10	34. 46 28	84. 40 8	.010	2943.	30.73	301.78	C	
7	NEW-	91.30	35. 8 58	85. 1 22	.010	1591.	10.74	233.97	A	
8	W217	91.30	35. 12 5	84. 53 0	.013	1191.	18.17	238.72	L	
9	WAWL	91.50	34. 56 37	85. 18 1	6.000	1211.	7.80	39.32	L	
10	WDEF	92.30	35. 8 6	85. 19 25	97.000	2438.	8.17	131.86	L	
11	WBIN	93.10	35. 11 15	84. 38 13	6.000	935.	28.93	252.71	L	
12	W227	93.30	35. 1 21	85. 15 42	.075	1089.	3.31	66.87	L	
13	WMPZ	93.70	34. 53 46	85. 10 18	4.900	1138.	8.99	351.17	A	
14	WMPZ	93.70	34. 53 51	85. 10 25	3.000	1165.	8.89	351.70	L	
15	WJTT	94.30	35. 7 32	85. 17 23	3.000	1440.	6.59	137.86	L	
16	WJTT	94.30	35. 7 32	85. 17 23	3.300	1440.	6.59	137.86	A	
17	WJTT	94.30	35. 7 33	85. 17 25	4.700	1509.	6.62	137.78	A	
18	W234	94.70	34. 45 6	84. 42 54	.010	2838.	29.61	306.34	L	
19	NEW-	94.90	34. 46 44	85. 26 23	.010	2323.	19.82	36.57	A	
20	W236	95.10	34. 43 57	85. 1 8	.010	1877.	20.71	334.55	A	
21	WALV	95.30	35. 9 54	84. 51 13	3.500	1280.	18.47	246.89	L	
22	W238	95.50	34. 57 26	85. 17 33	.010	1299.	6.93	41.16	L	
23	WATG	95.70	34. 28 10	85. 17 48	1.300	1480.	34.81	7.89	L	
24	WAYB	95.70	35. 24 26	85. 4 18	3.000	1096.	22.67	196.07	L	
25	WDOD	96.50	35. 9 39	85. 19 11	100.000	2346.	9.15	139.92	L	
26	WKXJ	97.30	34. 57 26	85. 17 33	1.000	1352.	6.93	41.16	L	
27	WKXJ	97.30	34. 58 21	85. 37 58	16.000	1831.	21.71	78.58	L	
28	W249	97.70	35. 9 28	85. 18 36	.027	2064.	8.70	141.55	L	
29	WZST	98.10	35. 5 16	85. 21 47	1.000	1939.	8.44	108.07	L	
30	WQMT	98.90	34. 44 29	84. 43 9	1.300	1880.	29.82	307.53	C	
31	WQMT	98.90	34. 45 29	84. 43 59	3.000	1411.	28.67	306.78	L	
32	W257	99.30	35. 0 33	85. 20 39	.250	2182.	7.40	73.52	L	
33	W259	99.70	34. 43 57	85. 1 8	.010	1877.	20.71	334.55	C	
34	W260	99.90	34. 55 35	85. 5 45	.010	1358.	8.72	324.15	L	

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35	WUSY	100.70	35.	12	26	85.	17	10	100.000	2507.	10.66	156.57	L	
36	W268	101.50	35.	12	30	85.	16	51	.008	2139.	10.62	158.00	L	
37	WMXN	101.70	34.	49	41	85.	45	54	1.800	1660.	30.68	65.00	L	
38	WSGC	101.90	34.	58	11	85.	5	10	1.300	1539.	7.15	308.66	L	
39	WGOW	102.30	35.	11	45	85.	13	45	6.000	1421.	9.21	170.98	L	
40	WBDX	102.70	34.	51	48	85.	23	35	.320	2474.	14.43	41.23	L	
41	W278	103.50	35.	9	28	85.	18	36	.250	2116.	8.70	141.55	L	
42	WCLE	104.10	35.	15	59	84.	50	23	2.300	1329.	22.13	232.95	L	
43	WYYU	104.50	34.	49	42	84.	53	41	3.000	1115.	19.82	310.80	L	
44	WYYU	104.50	34.	49	42	84.	53	41	6.000	1122.	19.82	310.80	C	
45	W284	104.70	34.	28	10	85.	17	48	.010	1470.	34.81	7.89	C	
46	W284	104.70	34.	57	26	85.	17	33	.010	1401.	6.93	41.16	L	
47	WSGM	104.70	35.	16	44	85.	44	2	1.000	2221.	29.75	118.26	L	
48	WDNT	104.90	35.	29	31	85.	2	59	.420	1942.	27.85	195.30	L	
49	WLMX	105.50	34.	57	26	85.	17	33	1.550	1532.	6.93	41.16	L	
50	WLMX	105.50	35.	2	55	85.	15	10	.540	1119.	2.62	95.84	L	
51	WSKZ	106.50	35.	9	42	85.	19	6	100.000	2365.	9.14	140.45	L	
*	52	PROP	107.50	34.	41	38	85.	16	12	6.000	1276.	21.30	9.35	A
53	WOGT	107.90	35.	9	42	85.	19	6	2.850	2234.	9.14	140.45	L	
	54	VGQO	115.80	34.	57	40	85.	9	12	.150	705.	5.48	335.42	V

Interference thresholds are computed using the following:

Type of navaid antenna:	8 Element Traveling Wave	14 dB Gain
Type of service volume:	U. S. Standard	

Listing of A2/B2 Evaluations

Freq (MHz)	ID	Call	Offset (MHz)	#Pts
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No A2/B2 points found.

Listing of 2-signal intermodulation (B1) combinations

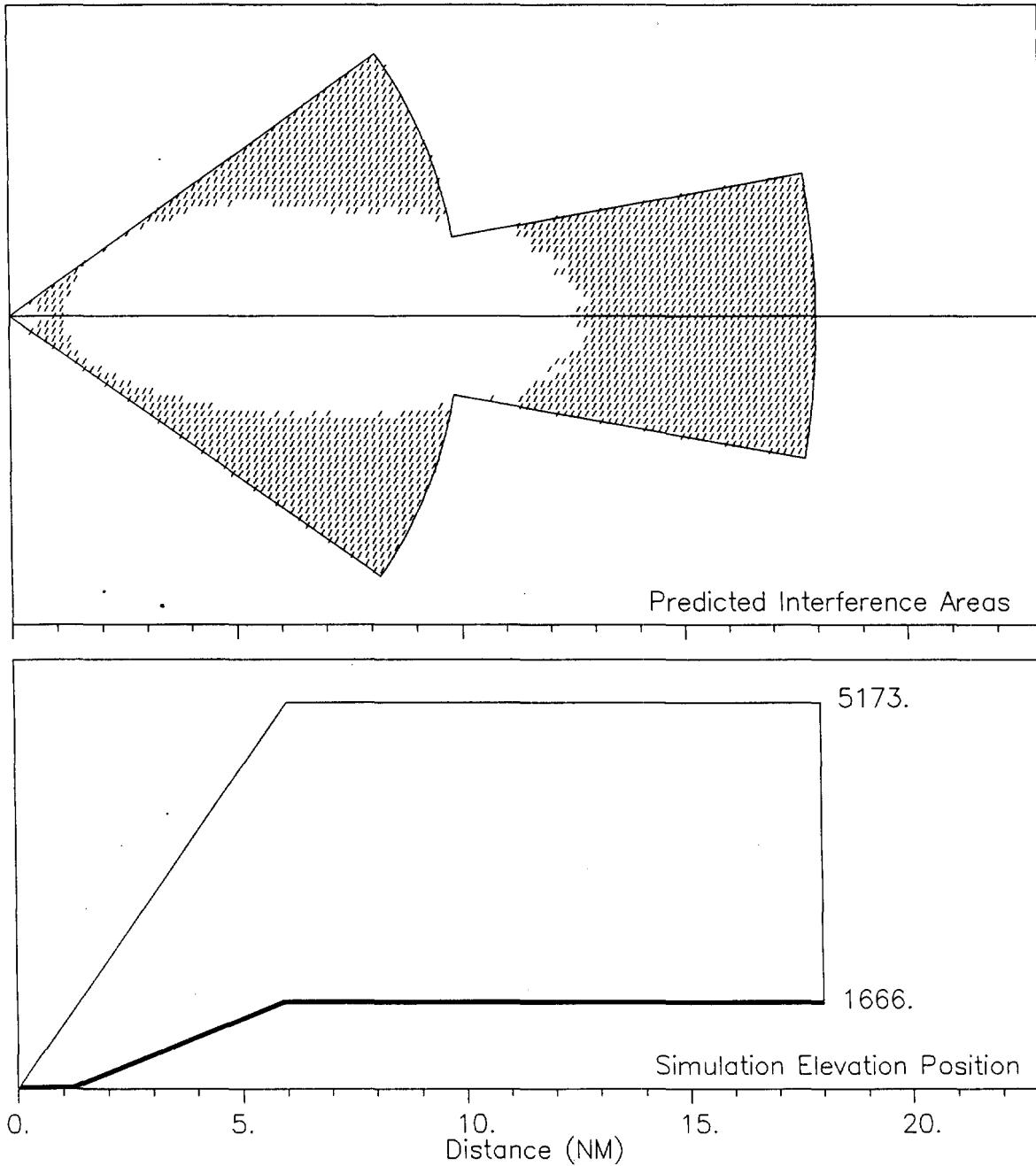
Freq 1 (MHz)	ID	Call	Freq 2 (MHz)	ID	Call	IMod (MHz)	Offset (KHz)	#Pts
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107.90(53) WOGT	107.50(52) PROP	108.30	0	2102
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Listing of 3-signal intermodulation (B1) combinations

Freq 1 (MHz)	ID	Call	Freq 2 (MHz)	ID	Call	Freq 3 (MHz)	ID	Call	IMod (MHz)	Offset (KHz)	#Pts
107.50(52)	PROP	105.50(49)	WLMX			104.70(47)	WSGM		108.30	0	2
107.50(52)	PROP	105.50(49)	WLMX			104.70(46)	W284		108.30	0	160



Airspace case #: 97-JPA-103097 Site: INITIAL TEST GENERIC
 Date: 103197 Plot filename: 1H_1G____.plt
 Intermodulation (B1) plot: WOGT (53) & PROP (52)
 Frequencies: WOGT = 107.90 MHz PROP = 107.50 MHz
 Navaid: CGW Frequency: 108.30 MHz Elevation (ft MSL): 666.
 Runway heading: 20.0
 Grid orientation: Bottom of service volume

ATTACHMENT "C"

POTENTIAL ORIGINAL	EMI	LAYFATTE	GA	SITE #1	SITE #2	SITE #3	SITE #4	SITE #5
SITE		VAC SITE	APP SITE					
LATITUDE		34-42-31	34-41-38	34-47-00	34-47-49	34-50-18	34-48-20	34-45-17
LONGITUDE		85-13-33	85-16-12	85-21-42	85-10-55	85-03-36	85-00-49	85-06-40
ANTENNA		GENERIC	GENERIC	GENERIC	GENERIC	GENERIC	GENERIC	GENERIC
ERP		6 KW	6 KW	6 KW	6 KW	6 KW	6 KW	6 KW
CENTER OF RADIATION		1291' AMSL	1264' AMSL	1439' AMSL	1230' AMSL	1228' AMSL	1215' AMSL	1307' AMSL
BRUTE FORCE (BF)				INTERMODULATION (IM)				
CGW LOCALIZER		BF 0 IM 2170 IM 3 IM 162	BF 0 IM 2102 IM 2 IM 160	BF 246 IM 2468 IM 5 IM 243	BF 0 IM 2562 IM 34 IM 219	BF 0 IM 2148 IM 9 IM 177	BF 0 IM 1836 IM 147	BF 0 IM 2132 IM 3 IM 162
REDUCED ERP								
SITE		VAC SITE	APP SITE	SITE #1	SITE #2	SITE #3	SITE #4	SITE #5
LATITUDE		34-42-31	34-41-38	34-47-00	34-47-49	34-50-18	34-48-20	34-45-17
LONGITUDE		85-13-33	85-16-12	85-21-42	85-10-55	85-03-36	85-00-49	85-06-40
ANTENNA		GENERIC	GENERIC	GENERIC	GENERIC	GENERIC	GENERIC	GENERIC
ERP		100 WATTS	100 WATTS	100 WATTS	100 WATTS	100 WATTS	100 WATTS	100 WATTS
CENTER OF RADIATION		1291' AMSL	1264' AMSL	1439' AMSL	1230' AMSL	1228' AMSL	1215' AMSL	1307' AMSL
BRUTE FORCE (BF)				INTERMODULATION (IM)				
CGW LOCALIZER		BF 0 IM 8	BF 0 IM 8	BF 5 IM 373 IM 8	BF 0 IM 22 IM 8	BF 0 IM 20 IM 8	BF 0 IM 10 IM 8	BF 0 IM 5 IM 8
14 BAY 1/2 WAVE 1 DEGREE BEAM TILT								
SITE		VAC SITE	APP SITE	SITE #1	SITE #2	SITE #3	SITE #4	SITE #5
LATITUDE		34-42-31	34-41-38	34-47-00	34-47-49	34-50-18	34-48-20	34-45-17
LONGITUDE		85-13-33	85-16-12	85-21-42	85-10-55	85-03-36	85-00-49	85-06-40
ANTENNA		14 1/2 -1	14 1/2 -1	14 1/2 -1	14 1/2 -1	14 1/2 -1	14 1/2 -1	14 1/2 -1
ERP		6 KW	6 KW	6 KW	6 KW	6 KW	6 KW	6 KW
CENTER OF RADIATION		1291' AMSL	1264' AMSL	1439' AMSL	1230' AMSL	1228' AMSL	1215' AMSL	1307' AMSL
BRUTE FORCE (BF)				INTERMODULATION (IM)				
CGW LOCALIZER		BF 0 IM 2114 IM 3 IM 160	BF 0 IM 2066 IM 1 IM 154	BF 221 IM 2433 IM 76 IM 233	BF 0 IM 2525 IM 26 IM 209	BF 0 IM 2070 IM 4 IM 166	BF 0 IM 1755 IM 136	BF 0 IM 2090 IM 3 IM 158
14 BAY 1/2 WAVE 1 DEGREE BEAM TILT								
REDUCED ERP								
SITE		VAC SITE	APP SITE	SITE #1	SITE #2	SITE #3	SITE #4	SITE #5
LATITUDE		34-42-31	34-41-38	34-47-00	34-47-49	34-50-18	34-48-20	34-45-17
LONGITUDE		85-13-33	85-16-12	85-21-42	85-10-55	85-03-36	85-00-49	85-06-40
ANTENNA		14 1/2 -1	14 1/2 -1	14 1/2 -1	14 1/2 -1	14 1/2 -1	14 1/2 -1	14 1/2 -1
ERP		100 WATTS	100 WATTS	100 WATTS	100 WATTS	100 WATTS	100 WATTS	100 WATTS
CENTER OF RADIATION		1291' AMSL	1264' AMSL	1439' AMSL	1230' AMSL	1228' AMSL	1215' AMSL	1307' AMSL
BRUTE FORCE (BF)				INTERMODULATION (IM)				
CGW LOCALIZER		BF 0 IM 8	BF 0 IM 8	BF 0 IM 320 IM 8	BF 0 IM 20 IM 8	BF 0 IM 20 IM 8	BF 0 IM 9 IM 8	BF 0 IM 3 IM 8